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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/721,709	11/27/2000	Hun Gun Park	K-238A	4055

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EXAMINER

GUHARAY, KARABI

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/721,709

Applicant(s)

PARK ET AL.

Examiner

Karabi Guharay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 8-22 and 29-34 is/are pending in the application.
- 4a) Of the above claim(s) 8-13 and 29-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 14-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1 ☐ Certified copies of the priority documents have been received.
- 2 ☒ Certified copies of the priority documents have been received in Application No. 09/717,069
- 3 ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Election/Restrictions

Applicant's election with traverse of Group II, including claims 14-22, in Paper No. 7, is acknowledged. The traversal is on the ground(s) that

- (1) Group III is generic to both Group I and Group II, and
- (2) Search and examination of the entire application could be made with serious burden.

This is not found persuasive for following reasons:

With regard to the first item, Group I and Group II, in this situation present two different combinations, having Group III as sub-combination common to each combination, Sub-combination is not considered generic to combination (see MPEP 806.04 © and 806.04(D)).

With regard to the second item, since different groups constitute patentably distinct species, requiring different fields of search, are indicia of an undue burden. See MPEP 808.02 and MPEP 803(B).

The requirement is still deemed proper and is therefore made FINAL.

Claims 8-13, and 29-34 are with drawn for consideration for being nonelected.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 14-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amemiya et al. (US 5742122).

Regarding claim 14, Amemiya discloses a plasma display panel (Fig 2) comprising a first substrate (1), a plurality of first substrate electrode pairs (7) formed on the first substrate, a second substrate (2) second substrate electrodes formed on the second substrate (W) to cross the first substrate electrode pairs, barrier ribs (31) are formed in the first and second direction (Amemiya teaches barrier ribs arranged in lattice form, first direction being the column direction and the second direction being row direction of the display, see lines 1-2 of column 8) and a dielectric layer (23) formed on the first substrate(1) wherein the first substrate electrode pairs (S, Sa) have a predetermined height, wherein the dielectric layer (23) includes a groove (area between two protruding part 23a) of a predetermined width and depth in the first direction (column direction) and second direction (row direction) on a surface region of the dielectric 23 (see Fig 2).

However, Amemiya fail to disclose a first dielectric layer on the on the second substrate electrode. However, in an AC plasma display it is well known that the electrodes are covered by dielectric layers (see US 5909083). Thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a first dielectric layer on the second substrate and the second substrate electrode to obtain a ac plasma display.

Regarding claim 15, Amemiya teaches lattice type barrier rib, in which barriers in the first direction are perpendicular to the barriers in the second direction.

Regarding claim 16, Amemiya discloses that the groove is formed in a region of the dielectric (23) corresponding to the barriers in the first direction (see Fig 2).

Regarding claim 17, Fig 2 clearly shows grooves extending the along a direction which is perpendicular to extension of column electrodes (w) thus corresponding to second barriers in a lattice type barrier structure (which is not shown in Fig 2).

Regarding claim 18, Amemiya teaches grooves on the dielectric layer (23) in both column direction and as well as row direction (see Fig 2), thus corresponding to the barriers in first and second direction in a lattice type barrier structure.

Regarding claim 22, Amemiya discloses that the groove is wider than the barriers (Fig 2).

Regarding claims 19-21, Amemiya discloses that the grooves (some parts of the grooves) are formed between barriers in the first direction and between barriers in the second direction. Alternatively,

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Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amemiya as applied to claim 1 above, and further in view of Ha et al. (US 6433477).

Claims 19-21 differ from Amemiya in that the grooves are not located between the barriers in first direction and also in second direction. However, in the same field of endeavor, Ha et al. disclose grooves in the dielectric layer located between the barrier ribs in order to get the advantage of increased discharge space, while having minimum discharge initiation voltage due to reduction of thickness of the dielectric layer (see Fig 4, lines 7-10 and 33-35 of column 3). Thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to relocate the grooves in the device of Amemiya between barrier ribs in order to have larger discharge space.

Other Prior Art Cited

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure : Asano et al. (US 5909083) ; Sano et al. (US 6249264).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karabi Guharay whose telephone number is (703) 305-1971. The examiner can normally be reached on Monday-Friday 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (703) 305-4794. The fax phone number for the organization is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

K.G.

Karabi Guharay
Patent Examiner
Art Unit 2879



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